VICTORIA'S ON-FARM INTERNET OF THINGS TRIAL

INVESTIGATING THE NEXT FRONTIER OF AGRICULTURE

CONNECTING VICTORIA

Round 2 IoT Trial Grant Application

Sample Application Responses: Sections 4 & 5

Below you will find a range of sample responses that may assist you when completing Sections 4 & 5 of the Round 2 IoT Trial Grant Application.

Section 4: About your business

Please tell us more about your farm (e.g. what do you produce, herd/flock size or area under production)

Some sample responses that were received from round one trial applications included:

1. We produce wheat, barley cereals and legumes. Crop rotation decisions are based on advice from our Agronomist. Considerations include weed load, soil moisture, soil tests and outlook for the season. Our farm typically sows two cereals, vetch or lentil then canola. We only do vetch hay when the opportunity arises, and this is usually used to feed Sheep.

2. We run 300 milking cows and operate a 18 swing over Herring Bone Dairy. The dairy is basic and completely manual. Dairy upgrades are planned for the next few years.

3. We utilise flood irrigation including sections of pipe and riser from river & groundwater sources. Our main exports are oaten hay and prime lambs.

4. Our orchard is close planting, 3.5-meter rows with 1 metre spacing, modern systems on trellis and modern growing techniques. Varieties grown are mainly Pink Lady varieties, Gala, Granny Smith, Corella pears, Piqa Boo Rico

pears, all on a central leader trellis. 15 hectares of my farm is covered in Frustar Gable hail netting.

What digital technology do you currently use?

In this section you can list the types of technology that you use on farm. Examples taken from round one trial applications include:

- Smart phone for checking weather conditions.
- Bookkeeping packages such as; QuickBooks, MYOB, Xero
- GPS Autosteer
- Weather stations
- Vegetative maps (NDVI)
- Electronic National Vendor Declarations (eNVD's)
- Soil moisture probes
- Electronic Identification tags (eID)
- Irrigation pumps on VSD's
- Variable rate spraying
- Spreadsheet calculations

Sample descriptive response:

We currently use the Dream controller from "Talgil", with an automatic filtering system, pumping around 3-4 MG per day. Connected to this system is a metered fertigation pump, with a flow meter measuring how much water is being pumped through giving an accurate reading of water applied. Connected to the Dream controller is a weather station that helps the system understand environmental conditions such as rain. The weather station includes two "aqua flex" moisture monitoring probes.

Section 5: About your project

Project title

A simple project title could be the name of your farm/property and *IoT trial*. For example, if your property was called *Carnarvon*, your project title could be **Carnarvon IoT Trial.** You could also choose to add in the type of farm business you operate, for example **Carnarvon Sheep IoT Trial.**

Describe your project

In this section briefly summarise what you hope to achieve with the funding provided.

Possible responses could take the following formats:

In this project I would like to….

- improve decision making processes associated with….through the use of….
- improve site security using…..
- improve data collection linked with….using….
- reduce time spent….using….
- reduce labour costs associated with….by using…..
- increase yield/production/water savings using….

Sample response:

In this project I would like to improve site security using security cameras. I would also like to reduce time spent irrigating with automated winches that I can control remotely.

Please explain why you wish to participate in this grant program. What goals do you have for your farm and business and how will investing in digital technology help you achieve this?

In this section briefly summarise any short, medium or long term goals you have for your business and how the technology you have chosen will assist you in meeting these.

Sample responses:

1. I would like to explore how technology can help me farm better. I do not know a lot about technology and would like to use this opportunity to learn and trial some new ways of farming.

2. In the short term I'd like to reduce input costs by $ xx per annum through improved water usage and increase productivity of my pasture.

3. To improve production and avoid costly down time of critical machinery e.g. cherry pickers and tractors.

Please describe the farm challenges you wish to resolve or how you are trying to improve your farming operation using each of the technology solutions selected.

Some sample responses that were received in round one of the trial included:

1. I would like to reduce labour expenses and improve my quality of life. I spend too much time farming and would like to automate some of the manual workload. Night irrigation is hard work and impacts on my sleep. Waking up a couple of times a night, multiple times a week, during irrigation season is extremely disruptive. The irrigation automation device X I have selected, from Supplier A will mean I do not have to wake up at night anymore.
2. We have experienced theft from sheds in the past and are interested in making our business more secure using these cameras selected from supplier A. We also have issues with water pumps during power outages and believe these same cameras could also be used to improve our ability to monitor stock troughs. We are also keen to explore the benefits of having more detailed weather and soil moisture data using weather station Z from supplier B.
3. We are directing water from our mains supply to our water troughs. To prevent overflow and loss of water from the troughs, we use heavy duty float valves. However, the float valves do fail from time to time and it is impossible to know if there is water in the troughs or if they are overflowing and we are losing water unless they are regularly checked in person. The trough level sensors selected from supplier C will save us lots of time and money not needing to travel across the property regularly.

Please describe the anticipated benefit for each solution selected and how that benefit might be assessed or measured. (i.e. how will you measure your return on investment?)

In this section please detail how each device or application/software will be of benefit to your business? How do you anticipate you might measure this benefit? Responses to this section could be in paragraph form or as a list. The return on investment is your estimated benefit and need not be a dollar figure.

[insert device type name] will help me *[insert desired outcome]*

Sample response:

1. Weather stations will help me monitor localised rainfall data to better predict crop yield. By better understanding my local rainfall, I hope to **save up to 10%** on my irrigation water allocation.

2. Irrigation automation will save me **6 hours every week** during irrigation season, and I will be able to sleep through the night.

3. I cannot put a dollar figure on the benefits of monitoring my farm equipment but the farm monitoring software and equipment I have selected with help me have a **greater quality of life and peace of mind** as I will feel more comfortable whenever I leave my property.

Where can I find more information?

For more assistance completing your grant application please email:
ag.iot@djpr.vic.gov.au

Alternatively, you can call the Industry Technology Coordinator in your region:

Greater Shepparton, Moira and Wellington Shires - Andy Clark, 0436 804 656

Loddon Shire - Mark Sloan, 0436 833 668

Buloke Shire - Mark Gould, 0448 086 059